Execution Strategy (Tekana-Wallet – Back-End)

Task	Participants	Rationale	Work Breakdown	Timebox

Brainstorming sessions to understand the overall business use case	• Key Business personnel
	• Business Analysts
	• Product Owner
	• Team lead/Scrum Master
	• Team members.
		These sessions will be helpful to understand the needs of the business and how they can be addressed through digitization, for this particular case study, there needs to be a clear picture of what the business wants to achieve with E-Tekana.	• Identification of
			  o Business use cases
			  o Functional & non-functional requirements
			• Classification of features as per criticality & execution order.
				5 Days

Establish an overall product roadmap	• Business analysts.
	• Team lead
	• Engineering Manager
	• Senior Back-end Engineer
	• Senior Front-end Engineer
		This phase will allow the team to consolidate efforts & expertise to come up with a blueprint of the intended solution.	Overall estimation of work effort
			• Preliminary ERD & class diagram
			• Descriptive key use cases study.
			• Cross functionality implications, in the context of the Back-end, input from the following stakeholders is instrumental:
			  o Infrastructure
			  o Network
			  o UI/Front-End Team
			• Gannt chart
				10 Days

Deliver a product roadmap in the context of the Back-End/System architecture	• Team Lead
	• Engineering Manager
	• Senior Back-End
	• Senior Front-end Engineers.
	• DevOps Lead
		Detailed plan of how the back-end team intends to execute the roadmap taking into consideration cross-functionality with the front-end & infrastructure team.
		
		For the case of E-Tekana wallet, it is crucial to establish a blueprint that illustrates how the back-end architecture plans to onboard users until they are able to make transactions in the system.
		
		Critical elements that can guide back-end roadmap execution:
		• Product breakdown structure
		  o Minimum viable product
		  o Minimum marketable product
		  o Version 1, 2 and further.
			• Features assessment & efforts estimation
			  o Registration
			  o Wallets
			  o Transactions
			• Key Integrations Assessment
			  o Identity - Nida.
			  o Banks, Mobile Wallets.
			  o Any other integration as per business logic needs.
			• Establish a Quality Control Process
			  o Test cases (Unit & Integration)
			  o Review Process
			  o Coding standards & Enforcement
			• Delivery pipeline
			  o Testing Environment
			  o Staging Environment
				5 Days

		• Critical RESTful endpoints to be consumed by the front-end • Sample of necessary data attributes		o Production Environment	
Strategy Assessment and review by management	• Engineering Manager • CTO	Presentation & Submission of compiled product roadmap for review and approval.	Feedback is highly taken into consideration. a final strategy should be drafted as per comments/input from Management.	5 Days

Strategy Execution (Back-end context)	• Team Lead/Product Owner
	• Senior Back End Engineer
	• Team Members
		Execution should adopt the following structure using an agile methodology (SCRUM)
		
		• Releases
		  o Sprints
		    ▪ Features
		
		Proposed Release plan
		  o Release 1 (MVP- most viable product) – 3 Sprints
		  o Release 2 (MMP - most marketable product) – 3 Sprints (Go - Live)
		  o Further Releases for Continuous Improvements.
		
		The MVP should have the following features
		  ▪ User Registration
		  ▪ Wallet Creation
		  ▪ Make transactions
		
		The MMP should be a solid product that went through user acceptance testing, system integration testing and have taken into consideration sandbox reviews, internal business unit review and considerably ready to be used by the public (Go-LIVE)
			Features can be allocated into sprints as per the following
			  • Sequential order
			  • Criticality
			  • Cross functionality
			
			Each Sprint would consist of 2 weeks
			
			Each Sprint would constitute:
			  ▪ Retrospective
			  ▪ Code reviews
			    o Best Principles Adoptions
			      ▪ SOLID
			      ▪ DRY
			      ▪ KISS
			    o Code
			      ▪ Efficiency
			      ▪ Readability
			    o Branch-feature Design
			    o Self-Documentation
			    o Version control
			    o Adherence to world class standards
			    o Test Coverage
			  ▪ Weekly delivery of finished endpoints to allow consumption by front-end team, enabling the possibility of an overlapping execution of the product roadmap across teams.
				3 Sprints (MVP)
				
				3 Sprints (MMP)